

**REMARKS/ARGUMENTS**

Claims 1-13 and 15-21 are pending in this application. By this Amendment, claims 1, 3, 6-7, 10, 13, 19 and 20 are amended, claim 21 is added and claim 14 is canceled without prejudice or disclaimer. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Applicants sincerely acknowledge the Office Action's indication that claims 3-7, 9, 14-18 and 20 define patentable subject matter. However, for at least the reasons set forth below, Applicants respectfully submit that all pending claims are in condition for allowance.

A. The Office Action rejects claims 1-2 and 8 under 35 U.S.C. §102(b) over U.S. Patent No. 5,943,099 to Kim. The rejection is respectfully traversed.

With respect to claim 1, Applicants respectfully submit that Kim fails to disclose every claimed feature as required under §102. For example, Kim fails to disclose at least features of a motion-adaptive interpolation method including estimating horizontal directional inter-frame motion information, calculating and outputting a line interpolation value, wherein the estimating horizontal directional inter-frame motion information is obtaining a block matching error (BME) by moving the basic unit image region at certain intervals in a horizontal direction of mutually opposite direction and combinations thereof as recited in claim 1. Further, Applicants respectfully submit that Kim does not teach or suggest any modification to its disclosure that

would result in at least features of estimating horizontal directional inter-frame motion information and calculating and outputting and combinations thereof as recited in claim 1.

For at least the reasons set forth below, Applicants respectfully submit that claim 1 defines patentable subject matter. Claims 2 and 8 depend from claim 1 and therefore also define patentable subject matter for at least that reason as well as their additionally recited features.

B. The Office Action rejects claims 10-13 and 19 under 35 U.S.C. §103(a) over U.S. Patent No. 6,577,345 to Lim et al. (hereafter "Lim"). The rejection is respectfully traversed.

With respect to claim 10, Applicants respectfully submit that Lim does not teach or suggest at least features of a motion-adaptive interpolation apparatus including horizontal directional motion estimating means and line interpolating means, wherein the linearly interpolated pixel value includes a temporally motion compensated interpolation value as the output of the horizontal directional motion estimating means, a temporal block matching error at that time, and previous and next pixel values used for the temporal motion compensation and combinations thereof as recited in claim 10. With respect to claim 19, Applicants respectfully submit that Lim does not teach or suggest at least features of a motion-adaptive interpolation apparatus including motion detecting means, post-processing means, horizontal directional motion estimating means and edge direction detecting means, wherein the data value inputted for the rule and filtering includes spatial linear interpolation value according to the edge direction obtained from the edge direction detecting means, a spatial block matching error at that time, and pixels used for a spatial linear interpolation; and temporal motion compensated interpolation

value obtained from the horizontal directional motion estimating means, a temporal block matching error at that time, and a pixel value used for a temporal motion compensation and combinations thereof as recited in claim 19. Further, Applicants respectfully submit that Lim does not teach or suggest any modification to its disclosure that would result in at least features of a motion-adaptive interpolation apparatus including horizontal directional motion estimating means and line interpolating means and combinations thereof as recited in claim 10 or motion detecting means, horizontal directional motion estimating means, edge direction detecting means and line interpolating means and combinations thereof as recited in claim 19.

For at least the reasons set forth above, Applicants respectfully submit that claims 10 and 19 define patentable subject matter. Claims 11-13 and 15-18 and 20 depend from claims 10 and 19, respectively, and therefore also define patentable subject matter for at least that reason as well as their additionally recited features. Withdrawal of the rejection of claims 10-13 and 19 under 35 U.S.C. §103 is respectfully requested.

C. Claim 21 is newly added by this Amendment and believed to be in condition for allowance.

### **CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes

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would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carl R. Wesolowski**, at the telephone number listed below. Favorable consideration and prompt allowance are earnestly solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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